

**Amendments to the Claims:**

1-44. (Canceled)

45. (New) A method for treating graft-versus-host disease in a recipient of an organ or tissue transplant, comprising:

administering to the transplant recipient pentostatin in a pharmaceutically effective amount after the transplantation.

46. (New) The method claim 45, wherein the transplant recipient is transplanted with bone marrow.

47. (New) The method of claim 45, wherein the transplant recipient is transplanted with hematopoietic stem cells.

48. (New) The method of claim 45, wherein the transplant patient is transplanted with hematopoietic stem cells and treated in a myeloablative conditioning regimen.

49. (New) The method of claim 45, wherein pentostatin is administered orally to the transplant recipient.

50. (New) The method of claim 45, wherein pentostatin is administered parenterally to the transplant recipient.

51. (New) The method of claim 45, wherein pentostatin is administered to the transplant recipient by intravenous infusion at a dose between about 1-10 mg/m<sup>2</sup>.

52. (New) The method of claim 45, wherein pentostatin is administered to the transplant recipient by intravenous infusion at a dose between about 2-6 mg/m<sup>2</sup>.

53. (New) The method of claim 45, wherein pentostatin is administered to the transplant recipient by intravenous infusion at a dose between about 0.1-2 mg/m<sup>2</sup>.
54. (New) The method of claim 45, wherein pentostatin is administered to the transplant recipient by intravenous infusion at a dose between about 0.5-1 mg/m<sup>2</sup>.
55. (New) The method of claim 45, wherein the transplant patient is treated with hematopoietic stem cells infusion and pentostatin is administered to the transplant recipient at 0.5 – 1.5 mg/m<sup>2</sup>/day on days +8, +15, +22 and +30 following the stem cell infusion.
56. (New) The method of claim 45, further comprising: administering to transplant recipient an immunosuppressive agent selected from the group consisting of prednisone, methylprednisolone, cyclophosphamide, cyclosporin A, FK506, thalidomide, azathioprine, Daclizumab, Infliximab, MEDI-205, abx-cbl and ATG.